AMENDMENTS TO THE CLAIMS

Kindly amend the claims, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows:

1-19.   (Canceled)

20.   (Currently Amended) An automated document publishing system implemented by at least one computer, said system comprising:

a document type store stored on said at least one computer and containing a plurality of document types, each document type identifying a document structure definition for use in the construction of a virtual document edition, each document structure definition comprising a hierarchy of element definitions;

a business data store stored on said at least one computer and containing business data;

a content library store stored on said at least one computer and containing a library of content components, each component being capable of use in a plurality of documents by reference;

an element store stored on said at least one computer and containing a plurality of elements for use in the construction of a virtual document edition, each said element being defined by a said element definition and identifying a said component by reference;

a document manager configured for execution by said at least one computer for using a selected said document type, said business data, and said elements to form a document structure for a virtual document edition to identify a plurality of said elements, each said element identifying a said component by reference and/or at least one other said element;

a document structure store stored on said at least one computer and storing at least one said document structure for at least one respective document edition to be published; and

an output system module configured for execution by said at least one computer for forming a structured serial document for publishing using said document structure.

21.   (Previously Presented) An automated document publishing system according to claim 20, wherein said element definitions define ~~rules and~~ element attributes, said elements include rules related to said business data and attributes and said document manager is adapted to form said document structure using said attributes and rules.

22.   (Previously Presented) An automated document publishing system according to claim 20, wherein said document manager is adapted to autopopulate said document structure based on said selected document type.

23.   (Previously Presented) An automated document publishing system according to claim 22, wherein said document manager is adapted to autopopulate said document structure by selecting and evaluating candidate elements against said business data.

24.   (Previously Presented) An automated document publishing system according to claim 22, wherein said document manager is adapted to autopopulate said document structure using a said document structure of a previous edition and re-evaluating the elements and identified components against said business data.

25.   (Previously Presented) An automated document publishing system according to claim 22, wherein said document manager is adapted to autopopulate said document structure using rules based on contexts and attributes for said elements and properties of identified components and said business data.

26.   (Previously Presented) An automated document publishing system according to claim 24, wherein said document manager is adapted to autopopulate said document structure using rules based on contexts and attributes for said elements and properties of identified components, said business data and dynamic substitution of components.

27.   (Previously Presented) An automated document publishing system according to claim 20, wherein each said document structure definition has a root element defining only other elements.

28. (Previously Presented) An automated document publishing system according to claim 20, wherein said document edition includes mandated content required to be present in the document edition, said document manager is adapted to use said document type, said business data, and said elements to identify mandated elements that are required to be present in the document structure to identify required components, to include said required elements in the document structure and to identify in the document structure any said required elements missing in said element store, said any missing elements identifying any missing components in said content library.

29. (Previously Presented) An automated document publishing system according to claim 28, wherein said output system is adapted to only publish document editions having all required elements and identified components.

30. (Currently Amended) An automated document publishing system according to claim 20, ~~including~~ further comprising an archive store for storing said structured serial document and the associated document structure for published documents.

31. (Previously Presented) An automated document publishing system according to claim 20, wherein said components in said content library are stored as groups of components having defined relationship properties, wherein said document manager is adapted to select a said component of a said group in said document structure using said document type, said business data and said elements.

32. (Previously Presented) An automated document publishing system according to claim 31, wherein said components of a group comprise text in different languages, said publication type defines a publication language and said document manager is adapted to form a document structure identifying language components based on the language defined in said selected document ~~type~~ edition.

33.   (Currently Amended) An automated document publishing system according to claim 32, ~~including~~ further comprising a translation system for identifying that a component in a group requires translation and notifying a translator that said component requires translation to create a new component in the group.

34.   (Currently Amended) An automated document publishing system according to claim 20, ~~including~~ further comprising a component interface to allow users to edit and/or add to said components in said content library.

35.   (Currently Amended) An automated document publishing system according to claim 20, ~~including~~ further comprising a proof generator for generating a proof comprising a static representation of the document edition for proofing.

36.   (Currently Amended) An automated document publishing system according to claim 35, ~~including~~ further comprising a proof archive for storing the static representation of a proof and the associated document structure.

37.   (Previously Presented) An automated document publishing system according to claim 36, wherein said proof generator is adapted to generate a proof by comparison to a previously generated proof.

38.   (Currently Amended) An automated document publishing system according to claim 20, ~~including~~ further comprising a user interface for editing a document structure for a virtual document edition, the user interface ~~including~~ further comprising first interface means for generating an image of at least one component in a first display region and enabling a user to edit said at least one component; and second interface means for generating an interface in a second display region to allow a user to make structural changes to the document structure, said second interface means being adapted to display handles in said second display region, each handle comprising an iconized representation of an element to allow selection and manipulation of the component identified by the element and being displayed in said second display region at a position adjacent to the component displayed in said first display region, and said handles being

displayed as an organizational structure defining the structure of the elements of the document edition.

39.   (Currently Amended) An automated document publishing system according to claim 38, ~~including~~ further comprising third interface means for generating an image in a third display region of a <u>hybrid</u> tree structure representing <u>in one display</u> the structure of <u>the document type of the displayed document edition and</u> a plurality of said elements ~~defining~~ comprising said <u>virtual</u> document ~~structure~~ edition, wherein each element identifies a said component and/or at least one other element, and said third interface means is adapted to enable a user to select components to be displayed in said first display region.

40.   (Previously Presented) An automated document publishing system according to claim 39, wherein said third interface means is adapted to highlight at least one position in the tree structure representing a position in the tree structure of at least one element identifying said at least one component displayed in said first display region.

41.   (Previously Presented) An automated document publishing system according to claim 38, wherein said second interface means is adapted to highlight at least one position in the structure representing a position in the structure of at least one element identifying said at least one component displayed in said first display region.

42.   (Previously Presented) An automated document publishing system according to claim 39, wherein said third interface means is adapted to indicate a position in the tree structure of an element identifying a missing component required in the document edition.

43.   (Previously Presented) An automated document publishing system according to claim 38, wherein said second interface means is adapted to indicate a position in the structure of an element identifying a missing component required in the document edition.

44.   (Currently Amended) An automated document publishing method comprising:

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storing a plurality of document types in a document type store, each document type identifying a document structure definition for use in the construction of a <u>virtual</u> document edition, each document structure definition comprising a hierarchy of element definitions;

storing business data in a business data store;

storing a library of content components in a content library store, each component being capable of use in a plurality of documents <u>by reference</u>;

storing a plurality of elements for use in the construction of a structure of a <u>virtual</u> document edition in an element store, each said element being defined by a said element definition and identifying a said component <u>by reference</u>;

using a selected said document type, said business data, and said elements to form a document structure for a <u>virtual</u> document edition to identify a plurality of said elements, each said element ~~defining~~ <u>identifying</u> a said component <u>by reference</u> and/or at least one other said element;

storing at least one said document structure for at least one respective <u>virtual</u> document edition to be published; and

forming a structured serial document for publishing using said document structure.

45.   (Previously Presented) An automated document publishing method according to claim 44, wherein said element definitions define rules and attributes, said elements include rules related to said business data and attributes and said document structure is formed using said attributes and rules.

46.   (Currently Amended) An automated document publishing method according to claim 44, ~~including~~ <u>further comprising</u> autopopulating said document structure for the document edition based on said selected document type.

47.   (Previously Presented) An automated document publishing method according to claim 46, wherein said autopopulating of said document structure is performed by selecting and evaluating candidate elements against said business data.

48.   (Previously Presented) An automated document publishing method according to claim 46, wherein said autopopulating of said document structure is performed using a said document structure of a previous edition and re-evaluating the elements and identified components against said business data.

49.   (Previously Presented) An automated document publishing method according to claim 46, wherein said autopopulating of said document structure is performed using rules based on contexts and attributes for said elements and properties of identified components and said business data.

50.   (Previously Presented) An automated document publishing method according to claim 48, wherein said autopopulating of said document structure is performed using rules based on contexts and attributes for said elements and properties of identified components, said business data, and dynamic substitution of components.

51.   (Previously Presented) An automated document publishing method according to claim 44, wherein each said document structure definition has a root element defining only other elements.

52.   (Previously Presented) An automated document publishing method according to claim 44, wherein said document edition includes mandated content required to be present in the document edition, said business data is used to identify mandated elements that are required to be present in the document structure to identify required components, said required elements are included in the document structure, and any said required elements missing in said element store are identified in the document structure, said any missing elements identifying any missing components in said content library.

53.   (Previously Presented) An automated document publishing method according to claim 52, wherein only document editions having all required elements and identified components in the associated document structure are published.

54.   (Currently Amended) An automated document publishing method according to claim 44, ~~including~~ further comprising storing said structured serial document and the associated document structure for published documents.

55.   (Previously Presented) An automated document publishing method according to claim 44, wherein said components are stored as groups of components having defined relationship properties, wherein a said component of a said group in said document structure is selected using said document type, said business data and said elements.

56.   (Previously Presented) An automated document publishing method according to claim 55, wherein said components of a group comprise text in different languages, said publication type defines a publication language and a document structure is formed identifying language components based on the language defined in said selected document type.

57.   (Currently Amended) An automated document publishing method according to claim 56, ~~including~~ further comprising identifying that a component in a group requires translation and notifying a translator that said component requires translation to create a new component in the group.

58.   (Currently Amended) An automated document publishing method according to claim 44, ~~including~~ further comprising providing a component interface to allow users to edit and/or add to said components in said content library.

59.   (Currently Amended) An automated document publishing method according to claim 44, ~~including~~ further comprising generating a proof comprising a static representation of the document edition for proofing.

60.   (Previously Presented) An automated document publishing method according to claim 59, including storing the static representation of a proof and the associated document structure.

61.   (Previously Presented) An automated document publishing method according to claim 60, wherein a proof is generated by comparison to a previously generated proof.

62.   (Currently Amended) An automated document publishing method according to claim 44, ~~including~~ further comprising generating an image of at least one component in a first display region and enabling a user to edit said at least one component; generating an interface in a second display region to allow a user to make structural changes to the document structure, displaying handles in said second display region, each handle comprising an iconized representation of an element to allow selection and manipulation of the component identified by the element and being displayed in said second display region at a position adjacent to the component displayed in said first display region; and displaying said handles as an organizational structure defining the structure of the elements of the document edition.

63.   (Currently Amended) An automated document publishing method according to claim 62, ~~including~~ further comprising for generating an image in a third display region of a hybrid tree structure representing in one display the structure of the document type of the displayed document edition and a plurality of said elements ~~defining~~ comprising said document edition ~~structure definition~~, wherein each element identifies a said component and/or at least one other element, to enable a user to select components to be displayed in said first display region.

64.   (Currently Amended) An automated document publishing method according to claim 63, ~~including~~ further comprising highlighting a position in the tree structure representing at least one position in the tree structure of at least one element identifying said at least one component displayed in said first display region.

65.   (Currently Amended) An automated document publishing method according to claim 62, ~~including~~ further comprising highlighting a position in the structure representing at least one position in the structure of at least one element identifying said at least one component displayed in said first display region.

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66.   (Currently Amended) An automated document publishing method according to claim 63, ~~including~~ <u>further comprising</u> indicating a position in the tree structure of an element identifying a missing component required in the document edition.

67.   (Currently Amended) An automated document publishing method according to claim 62, ~~including~~ <u>further comprising</u> indicating a position in the structure of an element identifying a missing component required in the document edition.

68.   (Previously Presented) A computer program product comprising a computer usable medium having computer readable code embodied therein to carry out the method of claim 44.